

Abstract

The invention relates to a method of photoeradication of cells at a tissue site, such as an infection or sterilization site or cancer cell activity site, including applying a solution such as methylene blue, toluidene blue, polymyxin B, SDS, or other surfactants and combinations thereof to the tissue site and exposing the tissue site with a light having a light wavelength and light dosage and a light dosage rate. The solution may have a concentration of methylene blue between 5 $\mu\text{g/ml}$ to about 100 $\mu\text{g/ml}$. The wavelength may range from about 610 nm to about 670 nm. The light dosage may range from about 0 J/cm^2 to about 200 J/cm^2 . The light dosage rate may range from about 0 mw/cm^2 to about 150 mw/cm^2 . Treatable organisms include candida albicans, escherechia coli, pseudomonas aeruginosa, staphylococcus aureus, streptococcus pneumoniae, and clostridia.

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